1951 5290 0100

lead, silver

349

Item 100

NEVADA

WHITE PINE COUNTY

WHITE PINE DISTRICT

ROSCOE M. SMITH
DAVID C. ARNOLD
DMA 866

DMA 866, Rocco-Homestake mine, White Pine County, Nevada, Report of examination by Field Team Region III, 7 pages, 5 illustrations, June 13, 1951.

Lone Pine (of Silurian age)

The ore deposits are in dolomite that strikes northwestward and dips 10°-35° NE in the mine area. The ore was localized along a favorable bed in the dolomite, and is commonly associated with thin, persistent quartzite members. Galena, anglesite, and cerrusite are the ore minerals. The grade of the ore was reported to be high, and was selectively mined and sorted to give a product containing about 60% lead and 10 oz. silver to the ton.

The Rocco-Homestake mine is in the "lead belt" west of Treasure Hill. From 1898 to 1905 the property yielded about 12,000 tons of lead carbonate ore valued at about $600,000.

The field team recommends an exploration loan be granted. The geologists estimate $23,000. The Executive officer believes that the figure should be raised to $25,000.

1951

LEAD, SILVER

NEVADA
WHITE PINE COUNTY
WHITE PINE DISTRICT

ROSCOE M. SMITH, USGS
DAVID C. ARNOLD, USGS
DMA 866

DMA 866, Rocco-Homestake mine, White Pine County, Nevada, Report of examination by Field Team, 7 pages, 5 illustrations, June 13, 1951.

Smith, Arnold, R.J. Roberts, and Fred Humphrey studied the geology for the loan application May 19-23.

The Rocco-Homestake mine is located in the "lead Belt" west of Treasure Hill, a silver bonanza camp in the 1867-1887's. The mine yieldedabout 12,000 tons of lead carbonate ore from 1898-1905, valued at about $600,000. The ore deposits of the R-H mine are in the Lone Mountain dolomite of Silurian age. In the mine area this formation has been divided into 5 units by Humphrey :

top--Nevada limestone

Lone Mountain dolomite

Unit 5	dolomite, dark & lt. gray, thin bedded, locally mottled	350' thick
Unit 4	dolomite lt. gray, coarse grained	200' "
Unit 3	dolomite, upper 30' lt. to dk gray, fine to med. grained; 8" qtzite bed 20' below top. Lower 300' porcellaneous fine grained, lt. gray dolomite	330' "
Unit 2	dolomite, medium to dk. gray, fine grained	500' "
Unit 1,	dolomite, lt. gray, coarsely crystalline	500' "

The ore bodies that have been mined are associated with the quartzite layers at the top of unit 3; thus is important as marker beds. The rocks have been complexly faulted and tilted. Two main sets of steeply dipping faults were mapped underground, a northward-trending set and anorthwestward-trending set. The Canyon and Rocco faults belong to the Northward-trending set. The Muir and Shaft faults belong to the NWward-trending set. The faulting appears to be pre-mineral, but there is post-mineral movement on most structures.

The ore bodies that have been mined follow bedding for the most part but locally extend out along steep faults. The ore along bedding is generally associated withthe thin quartzite beds near the top of unit 3 and replaces a favorable dolomite bed. The ore bodies were stoped for a strike length of 150' and down dip for 400'. The average thickness of the stoped bodies ranged from 1-5'. Galena, anglesite, and cerrussite are the ore minerals. The grade of the ore was reported to be high. Selective mining and sorting yielded a product 60% lead and 10 oz. silver per ton.

Maps: Geol. map of part of White Pine district 2000' to 1"
Geol. sketch map of 300 level 40' to 1"
" " " 400 level "
Section along line A-A' "
Index map